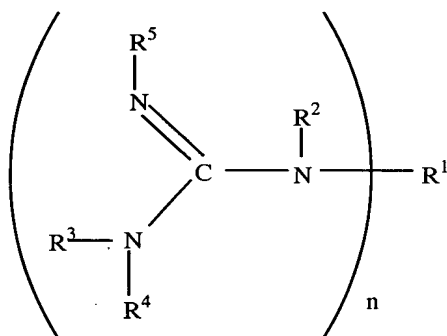


CLAIMS:

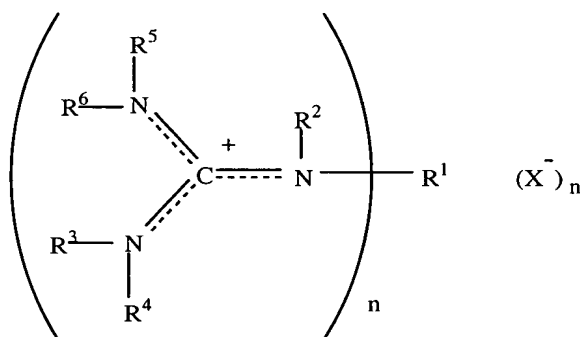
1. A method for removing a neutral or an ionic guanidine compound from an aqueous media comprising less than 4 wt.% of an alkali metal halide, wherein the method is selected from the group consisting of (a) adsorption onto a carbonaceous adsorbent, (b) adsorption onto a clay adsorbent, (c) filtration through a nanofiltration membrane, and (d) removal of water and calcination.

2. The method of claim 1, wherein the guanidine compound has the formula



wherein each of R^2 , R^3 , R^4 and R^5 is independently a primary alkyl radical and R^1 is a primary alkyl or bis(primary alkylene) radical, or at least one of the R^1 - R^2 or R^3 - R^4 combinations with the connecting nitrogen atom forms a heterocyclic radical; and the value of the parameter n is 1 or 2.

3. The method of claim 1, wherein the guanidine compound has the formula



wherein each of R^2 , R^3 , R^4 , R^5 and R^6 is independently a primary alkyl radical and R^1 a primary alkyl or bis(primary alkylene) radical, or at least one of R^2 , R^3 , R^4 , R^5 and R^6 is hydrogen, or at least one of the R^1 - R^2 , R^3 - R^4 or R^5 - R^6 combinations with the connecting nitrogen atom forms a heterocyclic radical; the moiety X is an anion; and the value of the parameter n is 1 or 2.

4. The method of claim 1, wherein both a neutral and an ionic guanidine compound are removed from the aqueous media.

5. The method of claim 1, wherein the concentration of guanidine compound present initially in the aqueous media ranges from about 0.5 parts per million to about 100,000 parts per million.

6. The method of claim 1, wherein the aqueous media is free of alkali metal halide.

7. The method of claim 1, wherein the aqueous media comprises an alkali metal halide in an amount of between about 0.01 wt.% and about 4 wt.%.

8. The method of claim 7, wherein the alkali metal halide is selected from the group consisting of sodium chloride and potassium chloride.

9. The method of claim 1, wherein the carbonaceous adsorbent is an activated carbon.

10. The method of claim 1, wherein the carbonaceous adsorbent is derived from the pyrolysis of a synthetic resinous polymer.

11. The method of claim 1, wherein the carbonaceous adsorbent is employed with aqueous media at a pH of greater than 7.

12. The method of claim 1, wherein the adsorbent is a clay selected from the group consisting of kaolinite, halloysite, dickite, nacrite, montmorillonite, nontronite, beidellite, hectorite, saponite, hydromicas, phengite, brammallite, glaucomite, celadonite, kenyaite, magadite, bentonite, stevensite, muscovite,

sauconite, vermiculite, volkonskoite, laponite, mica, fluoromica, smectite, and mixtures containing at least one of these clays.

13. The method of claim 1, wherein the clay comprises sodium montmorillonite.

14. The method of claim 1, wherein the nanofiltration membrane has a molecular weight cut-off sufficient to retain from about 70% to about 100% of the guanidine compound.

15. The method of claim 1, wherein calcination is performed at a temperature in a range of between about 500°C and about 600°C.

16. The method of claim 1, wherein the concentration of guanidine compound following removal is less than 30% of the initial concentration.

17. The method of claim 1, wherein the concentration of guanidine compound following removal is less than 15% of the initial concentration.

18. The method of claim 1, further comprising the step of recovering the guanidine compound.

19. The method of claim 1, wherein an additional inorganic or organic component is removed in addition to the neutral or ionic guanidine compound.

20. The method of claim 19, wherein the additional component is sodium phenylphosphinate.

21. The method of claim 19, wherein the additional component is chlorophthalic acid.

22. A method for removing a guanidine compound selected from the group consisting of hexaethylguanidinium chloride, pentaethylguanidine, and mixtures thereof, from an aqueous media comprising less than 4 wt.% of an alkali metal halide, wherein the method is selected from the group consisting of (a) adsorption onto a carbonaceous adsorbent selected from the group consisting of activated carbon and a

carbonaceous adsorbent derived from the pyrolysis of a synthetic resinous polymer, (b) adsorption onto a clay adsorbent, (c) filtration through a nanofiltration membrane having a molecular weight cut-off sufficient to retain from about 80% to about 100% of the guanidine compound, and (d) removal of water and calcination at a temperature in a range of between about 500°C and about 600°C;

wherein the concentration of guanidine compound present initially in the aqueous media ranges from about 1 part per million to about 20,000 parts per million, and wherein the concentration of guanidine compound following removal is less than 20% of the initial concentration.

23. The method of claim 22, wherein the aqueous media is free of alkali metal halide.

24. The method of claim 22, wherein the aqueous media comprises an alkali metal halide in an amount of between about 0.01 wt.% and about 4 wt.%.

25. The method of claim 24 wherein the alkali metal halide is selected from the group consisting of sodium chloride and potassium chloride.

26. The method of claim 22, wherein the carbonaceous adsorbent is employed with aqueous media at a pH of greater than 7.

27. The method of claim 22 further comprising the step of recovering the guanidine compound.

28. The method of claim 22, wherein an additional inorganic or organic component is removed in addition to the neutral or ionic guanidine compound.

29. The method of claim 28, wherein the additional component is sodium phenylphosphinate.

30. The method of claim 28, wherein the additional component is chlorophthalic acid.

31. A method for removing a guanidine compound selected from the group consisting of hexaethylguanidinium chloride, pentaethylguanidine, and mixtures thereof, from an aqueous media optionally comprising an alkali metal halide, wherein the method is selected from the group consisting of (b) adsorption onto a clay adsorbent, (c) filtration through a nanofiltration membrane having a molecular weight cut-off sufficient to retain from about 80% to about 100% of the guanidine compound, and (d) removal of water and calcination at a temperature in a range of between about 500°C and about 600°C;

wherein the concentration of guanidine compound present initially in the aqueous media ranges from about 1 part per million to about 20,000 parts per million, and wherein the concentration of guanidine compound following removal is less than 20% of the initial concentration.

32. The method of claim 31, wherein the aqueous media is free of alkali metal halide.

33. The method of claim 31 wherein the alkali metal halide is present at a level in a range of between about 0.01 wt.% and about 10 wt.%, based on the total weight of the aqueous media.

34. The method of claim 33 wherein the alkali metal halide is selected from the group consisting of sodium chloride and potassium chloride.

35. The method of claim 31 further comprising the step of recovering the guanidine compound.

36. The method of claim 31, wherein an additional inorganic or organic component is removed from aqueous media in addition to the neutral or ionic guanidine compound.

37. The method of claim 36, wherein the additional component is sodium phenylphosphinate.

38. The method of claim 36, wherein the additional component is chlorophthalic acid.